73. (original) The circuit according to claim 72 wherein each of the different materials has a different resistivity from the other.

74. (original) The circuit according to claim 72 wherein each of the different materials is a doped semiconductor material.

75. (original) The circuit according to claim 74 wherein the doped semiconductor material is either an n-type or a p-type semiconductor material.

76. (original) The circuit according to claim 72 wherein the nucleic acid template is DNA.

77. (original) The circuit according to claim 72 wherein the nucleic acid template is RNA.

78. (original) The circuit according to claim 72 wherein the circuit element is a resistor and the different materials comprise a first material separated by a second material having a different resistivity than the first material.

79. (original) The circuit according to claim 78 wherein the first material comprises a metal and the second material comprises an at least partially conductive material.

80. (original) The circuit according to claim 72 wherein the circuit element is a diode and the different materials comprise a first type of semiconductor material adjacent to a second type of semiconductor material.

81. (original) The circuit according to claim 80 wherein the first and second types of semiconductor materials are N-type and P-type semiconductor materials.

82. (original) The circuit according to claim 80 further comprising a pair of at least partially conductive leads, each of the leads is coupled to one of the first and second types of semiconductor materials.

83. (original) The circuit according to claim 72 wherein the circuit element is a capacitor and the different materials comprise a pair of conductive leads and a pair of at least partially conductive plates, each of the conductive leads is coupled to one of the plates and the plates are separated by a dielectric.

84. (original) The circuit according to claim 72 wherein the circuit element is a transistor and the different materials comprise a first type of semiconductor material separated by a second type of semiconductor material.

85. (original) The circuit according to claim 84 wherein the first and second types of semiconductor materials are N-type and P-type semiconductor materials.

86. (original) The circuit according to claim 84 wherein the nucleic acid template core comprises three branches having a common intersection, the second type of semiconductor material coating at least a portion of the common intersection and the first type of semiconductor material coating at least a portion of two of the three branches adjacent the intersection.

87. (original) the circuit according to claim 86 further comprising a plurality of at least partially conductive leads, each of the leads coupled to one of the first and second types of semiconductor materials along one of the three branches.

88. (original) The circuit according to claim 72 wherein the circuit element is an inductor and wherein the different materials comprise a coil of at least partially conductive material and a pair of conductive leads coupled to opposing ends of the coil.

89. (original) The circuit according to claim 88 further comprising a core structure, the coil wrapped at least partially around the core.

90. (original) The circuit according to claim 89 wherein the core structure comprises a histone-like protein.

91-108. (withdrawn)